Layout of the Operating Room Suite

SSG timmons

Terminal Learning Objective

Given a simulated operating room suite and the necessary supplies and equipment, provide a safe and functional environment by demonstrating your knowledge of basic OR equipment, traffic patterns, and OR suite features.

Enabling Learning Objectives

- Given a list select the physical layout, the description, dress, and examples of the three traffic pattern areas of the OR.

Enabling Learning Objectives

- Given a list, select the description and function of the OR support areas.
- Given a list, select the features and/or purpose of the OR design features.

Enabling Learning Objectives

- Given a list, select the uses of the furniture and equipment used in the OR.

Physical Layout of the Operating Room

- Divided into 3 traffic pattern areas: unrestricted, semi-restricted, and restricted.

Physical Layout of the Operating Room

- Operating Rooms are constructed from a variety of floor plans, each designed to keep clean separated from dirty.

Unrestricted areas

- Provides outside to inside access.
- No traffic restrictions.
- Dress - street clothes are permitted.

Examples

- Patient receiving/holding areas.
- Dressing rooms.
- Lounges and offices.

Semi-restricted

- Authorized personnel only (patients and staff).
- Provides access from an unrestricted area to a restricted area of the OR.
- Dress- Proper OR attire (scrubs, head and shoe covers) is required.

Examples

- Hallways (within the operating room itself).
- Instrument and supply processing area.
- Non-sterile storage areas and utility rooms.

Restricted areas

- Where surgical procedures are carried out.
- Authorized personnel only
- Dress- Proper OR attire including a mask must be worn in these areas.

Examples

- Scrub sink areas
- Operating suites
- Sterile supply rooms

Support Areas in the OR

- Preoperative area- patient holding/receiving area where patients wait for surgery.
- Dressing (locker) rooms- used by staff personnel to change into OR (surgical) attire and personal hygiene.

Support Areas in the OR

- Central administrative area-“front desk”-control center for (OR) operations.
- Offices- used to conduct daily activities by the secretary, operating room supervisor, and his/her assistant.

Support Areas in the OR

- **Decontamination Room- A room located between one or more OR suites that usually contains washer sterilizers, sinks, and all necessary cleaning aids used for cleaning and decontamination of instruments following surgical procedures.**

Support Areas in the OR

- **Sterile Core- area adjacent to OR's where instruments may be sterilized if needed during OR procedures.**
- **Scrub Room- enclosed area, adjacent to the OR suites in a restricted area.**

Support Areas in the OR

- **Function - Where surgical team members perform hand and arm scrub.**

Supply/Equipment Rooms

- **Sterile supply - clean climate-controlled room in a restricted area used to store sterile supplies such as sterile gowns, gloves, and sponges.**

Supply/Equipment Rooms

- Housekeeping supply-holds supplies and equipment required for OR sanitation i.e.... disinfectants, wet vacuums.

Supply/Equipment Rooms

- Anesthesia supply -holds anesthesia supply items and extra equipment needed by anesthesiologists.

- **Equipment room- clean storage room where equipment that may be required for surgical procedures is stored, such as x-ray equipment, stirrups, also monitoring equipment.**

Operating Room Design Features

- **Doors- Surface-sliding type (not recessed into thewall) are recommended. This helps to eliminate air turbulence caused by swinging doors and allows all surfaces to be washed.**

Operating Room Design Features

- **Floor- should be smooth and seamless, non-porous, and constructed of fireproof materials.**
- **Walls- should be hard, non-porous, fire resistant, stain proof, seamless, and easy to clean.**

Ventilation System

- Must ensure a controlled supply of filtered air to prevent build-up of anesthetic gases.
- To control humidity and suppress the build-up of static electricity.

- **Piped-In gas System - For the delivery of compressed air, oxygen, nitrous oxide etc.... from a central source and not from tanks in the individual ORs.**

- **Vacuum System- Provides suction used by anesthesia and surgical team members during surgical procedures.**

- **Electrical systems - Must have multiple electrical outlets available from separate circuits. This decreases the chances for a blown fuse and prevents loss of all power if a fuse is blown.**

Lights (Two Types)

- General Room Lights- used for illumination of the OR. Must be recessed into the ceiling to avoid dust collection.
- Operating Spot Light- used for illumination of the operative site.

OR Communication Systems

- Voice intercommunication system (Intercom)- Used for paging the surgeon for emergency assistance.
- Computers - Standard in some OR's.

Computers- Used for:

- Documentation of care.
- Scheduling
- Retrieval of lab results.
- Storage of surgeons preference information.
- Tracking of supplies and equipment.

Storage

- Cabinets may be built-in or free standing.

Standard Equipment present in most OR's

- Operating table
- Instrument table ("back table")
- Mayo stand with tray
- Prep table
- Anesthesia machine
- IV stand

Standard Equipment Cont.

- Sitting stools and platforms
- Suction bottles and tubing
- Linen hampers and frames
- Ring stands (single and double)

Cont.

- Kick buckets
- Large trash containers
- Electrosurgical unit

QUESTIONS !

- **The only dumb question is the one that is never asked.**
- **Study and you will succeed.**
- **Remember always stay focused.**